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Special Provision for Temporary Portable Bridge Traffic Signals

April 18, 2003

This special provision was developed by the Bureau of Operations to provide statewide requirements for temporary portable (i.e. trailer mounted) bridge traffic signals. It should be inserted into bridge contracts when the district wants the Contractor to have an option to post-mounting the temporary bridge traffic signals.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the August 1, 2003 and subsequent lettings. The Project Development and Implementation Section will include the paper copy in the contract.

This special provision will be available on the transfer directory April 18, 2003.

80106m

TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS (BDE)

Effective: August 1, 2003

Description. At the Contractor's option, temporary portable bridge traffic signals may be used in place of temporary bridge traffic signals. Work shall be according to Article 701.06(b) of the Standard Specifications except as follows:

Materials. Materials shall meet the following Articles of Section 1000 – Materials:

Item	Article/Section
(a) Traffic Signal Head	1078
(b) Electric Cable	1076.04
(c) Controller.....	1073
(d) Controller Cabinet	1074.03
(e) Detector Loop.....	1079

CONSTRUCTION REQUIREMENTS

General. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

All signal heads located over the travel lane shall be mounted at a minimum height of 5 m (17 ft) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 2.5 m (8 ft) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using hardwire communication cable or radio communication equipment. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on Uniform Traffic Control Devices (MUTCD). The signal system shall be designed to continuously operate over an ambient temperature range between -34 °C (-30 °F) and 48 °C (120 °F).

When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment according to Article 701.04(b)(3).

Basis of Payment. This work will be paid for according to Article 701.08(c).

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